

ABSTRACT OF THE DISCLOSURE

In a polymer electrolyte fuel cell stack using  
a latent heat cooling system, a plurality of first  
reactant gas flow paths formed in one plate surface of  
5 each separator are made substantially linear in the  
vertical direction, and an arrangement capable of  
supplying water to the first reactant gas flow paths  
includes a water manifold formed to extend through the  
separator, a water supply path branched from the water  
10 manifold and horizontally formed in a surface in which  
second reactant gas flow paths are formed, and  
communication holes horizontally formed in a first  
reactant gas flow path introducing portion to allow the  
water supply path to communicate with the first  
15 reactant gas flow paths, and present above the  
lowermost portion in the vertical direction of the  
water manifold. With this arrangement, stable power  
generation can be performed regardless of, e.g., the  
stack installation angle or vibrations.